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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,352	01/14/2002	Renji Yang	0109015/024	4868
24573 7590 12/13/2007 BELL, BOYD & LLOYD, LLP P.O. Box 1135 CHICAGO, IL 60690			EXAMINER HAYES, ROBERT CLINTON	
			ART UNIT 1649	PAPER NUMBER
			MAIL DATE 12/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/047,352	Applicant(s) YANG ET AL.	
	Examiner Robert C. Hayes, Ph.D.	Art Unit 1649	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2007.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 51,54-56,58-64,66,67,69,70 and 81-84 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☒ Claim(s) 51,54-56,58-63 and 81 is/are allowed.
 6) ☒ Claim(s) 64,66,67,69,70 and 82-84 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/21/07 has been entered.
2. The rejection of claims 6, 23, 25, 31, 33-35, 39-44, 46, 49-51, 54-56, 58-64, 66-67, 69-77 & 81-82 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement for the recitation of *c-myc gene*, is withdrawn due to the cancellation or amendment of the claims.
3. The rejection of claims 25, 33 & 49 under 35 U.S.C. 112, second paragraph, as being indefinite for lacking proper antecedent basis is withdrawn due to the cancellation of these claims.
4. The rejection of claims 6, 23, 25, 31, 33-35, 39-44, 46 & 49-50 under 35 U.S.C. 103(a) as being unpatentable over Nakafuka et al (IDS Ref #26), in view of Eilers et al (IDS Ref #20) and/or Evans et al (1988) is withdrawn due to the cancellation of these claims.

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5. Applicant's arguments filed 8/21/07 have been fully considered but they are not deemed to be persuasive.

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 51, 54-56, 58-63 & 81 are allowed.

8. Claims 64, 66, 67, 69, 70 & 82-84 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite and incomplete for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

No proper antecedent basis exists for the recitations of "said neural precursor cell *line*" (line 4) or "*said* neural precursor cells" (line 3) or "said neural precursor *cell*" (lines 7 & 10) in base claim 64.

It is suggested that amending claim 64, lines 2-3 to "[said] the neural precursor cells", line 4 to "at least one cell [of] from said neural precursor cell lines", and lines 7 & 10 to "said neural precursor cells", along with dependent claims 66 & 82, should obviate this part of the rejection.

Claim 64 is further ambiguous and/or incomplete because step (b) only recites "modifying", which makes little sense unless a MycER construct, etc. has already been transfected into the neural precursor cells, which has not been recited as an active step; thereby, being an incomplete method. Additionally, what this construct actually entails using this

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particular claim language is confusing, because nothing in the claim necessitates a “receptor ligand-regulated *c-myc* cDNA, etc., as recited in claim 51, for example.

Lastly, claim 83 is confusing because this step is contradictory to the preamble of base claim 51. In other words, differentiation would then commence; thereby, no longer “obtaining a culture of human neural precursor cells”.

9. Claims 64, 66, 67, 69, 70 & 82-84 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, for similar reasons made of record in Paper NOs: 20060104, 20060713 & 20070416, and as follows. This is a new matter rejection.

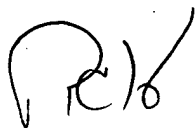
Similar to that previously made of record, it is improper to broaden what the specification actually discloses in order to create a new genus of claims after-the-fact. The proper context for methods related to “maintaining the capacity of neural cell lines of a human *to differentiate into neurons in vitro...*” is found only on pages 10-11 & 16-17 of the specification using solely the MycER construct described on pages 11-12 (i.e., as it especially relates to claim 64(b)), versus any broader concept of using any generic “*c-myc* protein fused with at least one nuclear receptor protein having a *c-myc*-activating ligand binding domain”. Likewise, the sole “*c-myc*-activating agent” described for use in a method for differentiating neural precursor cells into neurons is “ β -estradiol (i.e., as it relates to both claims 64, 70 & 83-84); thereby, constituting new matter.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Robert Hayes whose telephone number is (571) 272-0885. The examiner can normally be reached on Monday through Thursday from 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Stucker, can be reached on (571) 272-0911. The fax phone number for this Group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'RCH', with a large, stylized flourish extending from the end.

Robert C. Hayes, Ph.D.
December 5, 2007

ROBERT C. HAYES, PH.D.
PRIMARY EXAMINER